PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Amjad Soomro
Application No.	:	10/578,646
Filed	:	May 9, 2006
For	:	METHOD AND SYSTEM FOR PROVIDING SERVICE TO WIRELESS DEVICES OPERATING IN A POWER SAVING MODE
Examiner	:	Matthew S. Lindsey
Art Unit	:	2453
Docket No.	:	853463.467USPC
Date	:	September 2, 2011

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

Commissioner for Patents:

This brief is in furtherance of the Notice of Appeal, filed in this case on June 10, 2011, and in response to the Final Office Action mailed on March 10, 2011, the Advisory Action mailed on May 24, 2011, and the decision on the Pre-Appeal Brief Request for Review mailed on August 2, 2011. The fees required under Section 41.20(b)(2), and any required request for extension of time for filing this brief and fees therefor, are dealt with in the accompanying transmittal letter.

I. REAL PARTY IN INTEREST

The real party in interest is ST-Ericsson SA, which has an address at 39 Chemin du Champ des Filles, 1228 Plan-Les-Outes, Geneva, CH.

II. RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's legal representative, and the real party in interest are unaware of any appeal or interference which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the present appeal. Appellant notes that an appeal was previously filed in this case, but was dismissed after Appellant filed a Request for Continued Examination.

III. STATUS OF CLAIMS

Claims 1-23 are pending and stand rejected. All pending active claims are attached hereto as an Appendix, and reflect the amendment entered by the Examiner for purposes of appeal.

Claims 1, 3-8, 10-20 and 22 stand rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent Application Publication No. 2004/0264397 A1 by Benveniste in view of U.S. Patent No. 7,724,691 issued to Rogers. Claims 2, 9, 21 and 23 stand rejected under 35 U.S.C. 103(a) as obvious over Benveniste and Rogers in view of U.S. Patent Application Publication No. 2003/0126244 A1 by Smith et al.

The rejections of claims 1-23 are appealed.

It is noted that the Final Office Action mailed March 10, 2011, rejected claims 18-21 under 35 U.S.C. Section 101 as directed to non-statutory subject matter. Appellant submitted an Amendment After Final on May 10, 2011, amending claims 18-21. For purposes of appeal, in an Advisory Action mailed on May 24, 2011, the Examiner entered the amendments to claims 18-21 and withdrew the rejection of claims 18-21 under 35 U.S.C. Section 101.

IV. STATUS OF AMENDMENTS

An amendment after the Final Office Action was submitted on May 10, 2011. The amendments to the claims addressed a rejection of claims 18-21 under 35 U.S.C. Section 101. The Examiner entered the amendments to claims 18-21 for purposes of appeal in an Advisory Action mailed on May 24, 2011, in which the Examiner withdrew the Section 101 rejections and disagreed with the arguments made in response to the Final Office Action with regard to the art-based rejections. The Examiner is thanked for entering the amendment for purposes of appeal and for withdrawing the Section 101 rejections.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The application is a conversion of PCT Application No. PCT/IB04/52343 filed November 8, 2004 into a U.S. National Application.

The present application includes 4 independent claims, all of which are being appealed. The following summary discusses the subject matter of the independent appealed claims along with citations to corresponding portions of the specification and drawings per 37 C.F.R. § 41.37(c)(1)(v). The citations below are provided to illustrate specific examples and embodiments of the recited language, and are not intended to limit the claims. None of the independent claims involved in the appeal or dependent claims argued separately includes means plus function elements or steps plus function elements as permitted by 35 U.S.C. § 112, sixth paragraph, and thus no corresponding summaries related to such means plus function elements or step plus function elements are included.

It is believed that the claimed invention will be more easily understood if some embodiments shown in the figures of the present application are discussed first. Following that discussion is a presentation of the independent claims with reference to the figures and specification. Of course, the parentheticals shown in claims 1, 8, 18 and 22 are intended to show support for the claimed elements, and are not intended to limit the claims only to the embodiments referenced in the parentheticals.

Figures 4 through 6 illustrate embodiments of methods of determining when to provide service to client devices operating in power save mode in a wireless network. Figure 4 appears below.

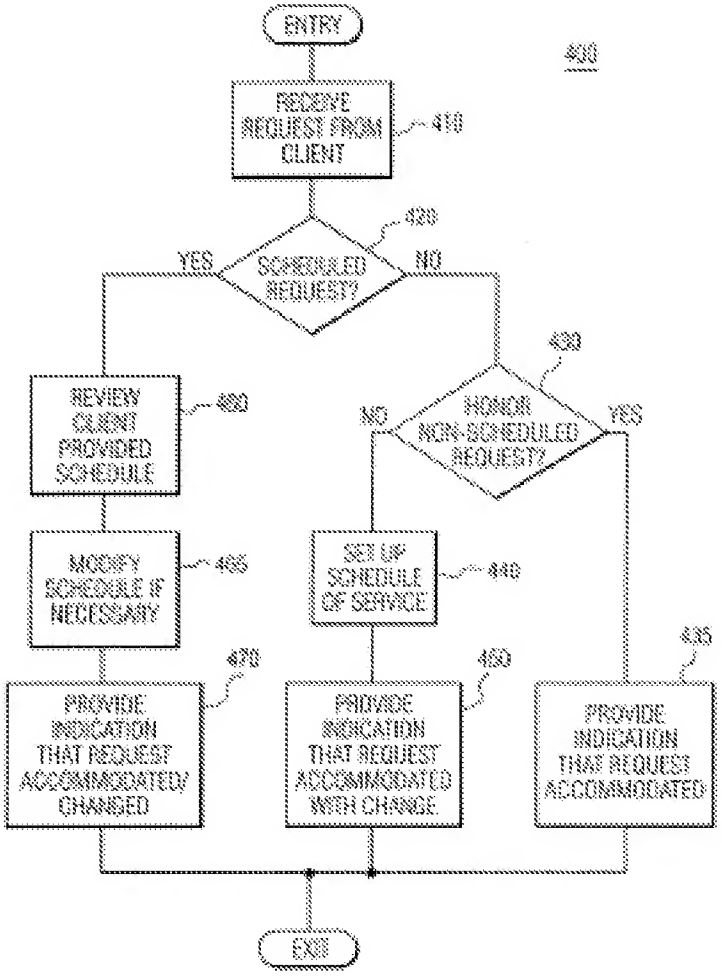

FIGURE 4

As illustrated, a service request is received from a client at 410. A determination is then made at 420 as to whether the request is for scheduled service or for unscheduled service. This may be done by setting a schedule bit in the service request, as illustrated in Figure 3B, which appears below.

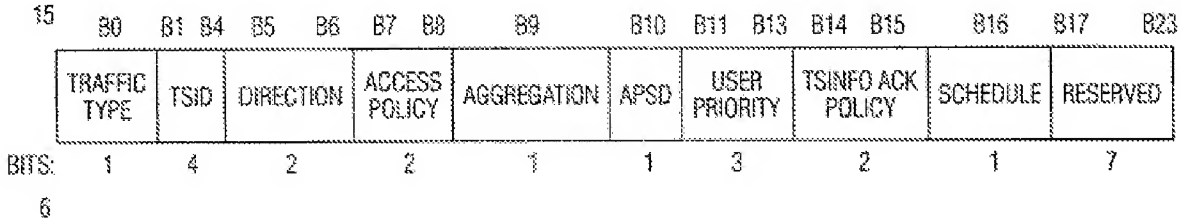

FIGURE 3B

If the request is for scheduled service, the request may then be processed according to the embodiment of a method set forth in Figure 5, reproduced below.

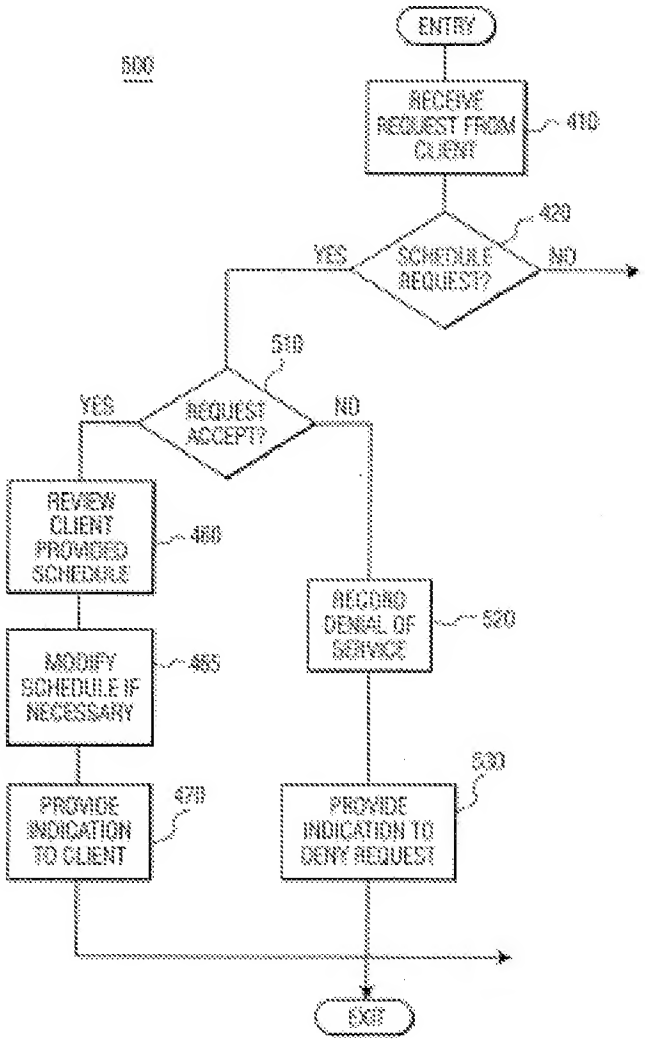

FIGURE 5

As illustrated, it is determined whether the request for scheduled service will be accepted at 510. If the request is accepted, it will be provided as requested or provided under a modified schedule, and the client will be provided with an indication of the schedule under which the service will be provided. See 460, 465 and 470. If the request is denied, the denial will be recorded and the client will be provided with an indication that the request has been denied. See 520, 530.

If the request is for unscheduled service, the request may be processed according to the embodiment of a method set forth in Figure 6, reproduced below.

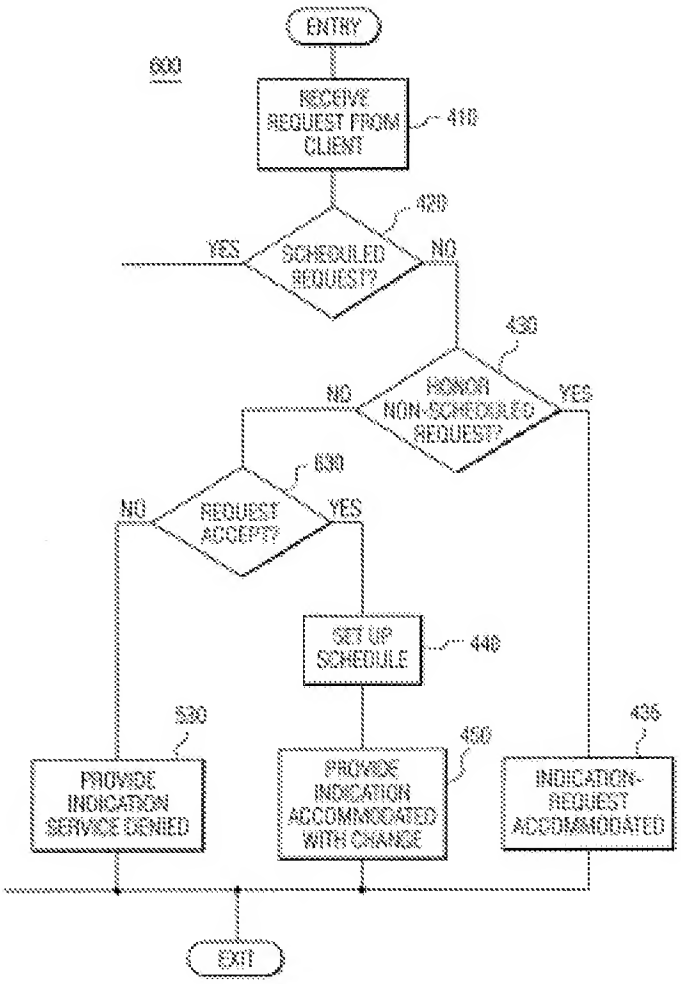

FIGURE 6

As illustrated, it is determined whether to honor the request for non-scheduled service (430). If the request is to be honored, the client is provided with an indication that the request will be accommodated (435). If it is not to be honored, it will be determined whether the request will be accepted (630). If the request is not accepted, the client will be provided with an indication that it was not accepted (530). If the request is to be accepted, a schedule will be set up and the client will be provided with an indication that the request will be accommodated with a schedule (440, 450).

Figure 7, reproduced below. illustrates a system 700 in a wireless network which is configured to determine when to provide service to client devices 701. The system includes a processor which, for example, is configured to execute instructions to carry out methods of determining when to process client requests, such as the methods illustrated in Figures 4-6.

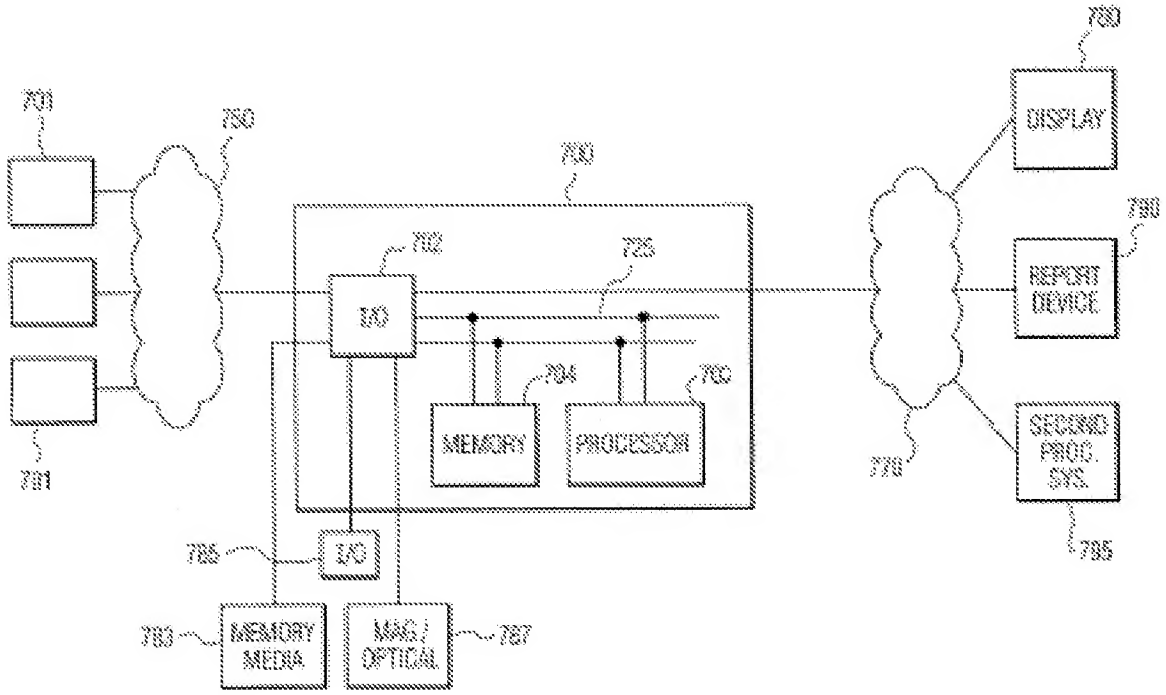

FIGURE 7

Independent Claim 1:

Independent claim 1 is directed to a method to determine in a network component (Fig. 7, 700) when to provide service to client devices (Fig. 7, 701) operating in power-saving mode in a wireless network (Fig. 7), the method comprising:

receiving requests for service from respective ones of said client devices (Figs. 4-6, 410), the received requests for service including a request for scheduled service received from a first one of the client devices (Figs. 4 and 5, 460) and a request for unscheduled service received from a second one of the client devices (Figs. 4 and 6, 430), said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-6, 420; page 4, paragraphs 20 and 21), said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-65, 420; page 4, paragraphs 20 and 21);

determining an ability to accommodate said received requests for service (Fig. 4, 460, 465, 430; Fig. 5, 510, 460, 465; Fig. 6, 430, 630; page 4, paragraph 21 to page 5, paragraph 23; page 6, paragraphs 27 and 28); and

providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client devices (Fig. 4, 470, 450, 435; Fig. 5, 470, 530; Fig. 6, 530, 450, 435; page 4, paragraph 21 to page 5, paragraph 26; page 6, paragraphs 27-29). (See also Figures 3a through 6 and the descriptions thereof on pages 4-6).

Independent Claim 8:

Independent claim 8 is directed to a device (Fig 7, 700) to determine when to provide service to client devices (Fig. 7, 701) operating in power-saving mode in a wireless network (Fig. 7), said device comprising:

a memory (Fig. 7, 704);

a processor (Fig. 7, 703) in communication with said memory, said processor operable to execute code to:

receive requests for service from respective ones of said client devices (Figs. 4-6, 410; page 8, paragraph 34), the received requests including a request for scheduled service received from a first one of the client devices (Figs. 4 and 5, 460) and a request for unscheduled service received from a second one of the client devices (Figs. 4 and 6, 430), said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-6, 420; page 4, paragraphs 20 and 21), said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-65, 420; page 4, paragraphs 20 and 21);

determine an ability to accommodate said received requests for service (Fig. 4, 460, 465, 430; Fig. 5, 510, 460, 465; Fig. 6, 430, 630; page 4, paragraph 21 to page 5, paragraph 23; page 6, paragraphs 27 and 28); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client devices (Fig. 4, 470, 450, 435; Fig. 5, 470, 530; Fig. 6, 530, 450, 435; page 4, paragraph 21 to page 5, paragraph 26; page 6, paragraphs 27-29). (See also Figures 3a through 7 and the descriptions thereof on pages 4-8).

Independent Claim 18:

Independent claim 18 is directed to a processing device (Fig. 7, 703) within a network component (Fig. 7, 700) to determine an ability of said network component to honor requests for service received from respective client devices (Fig. 7, 701), said processing device being configured to cause the network component to:

review, under control of the processing device, an operating state of said network component (Figs. 4-6, 430, 465, 510, 630; page 4, paragraph 21; page 5, paragraphs 23, 25 and 26; page 6, paragraph 27);

review, under control of the processing device, said requests for service (Figs. 4-6, 410; page 8, paragraph 34), the requests for service including requests for scheduled service and requests for unscheduled service, said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-6, 420; page 4, paragraphs 20 and 21), said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-65, 420; page 4, paragraphs 20 and 21);

cause, under control of the processing device, the network component to accommodate said requests for service, with modification when necessary, when said operating state indicates that said requests for service are able to be accommodated (Fig. 4, 465, 440, 450, 435; Fig. 5, 465; Fig. 6, 440, 450, 435; page 8, paragraph 34; page 12, original claim 18); and

provide respective indications of said accommodation to said first and second one of the client devices (Fig. 4, 470, 450, 435; Fig. 5, 470, 530; Fig. 6, 530, 450, 435; page 4, paragraph 21 to page 5, paragraph 26; page 6, paragraphs 27-29). (See also Figures 3a through 7 and the descriptions thereof on pages 4-8).[1]

[1] Appellant has noted an antecedent basis error in claim 18, and Appellant will work with the Examiner on remand to address the error.

Independent Claim 22:

Independent claim 22 is directed to a non-transitory computer readable media (Fig. 7, 704, 787, 783; page 7, paragraph 32 to page 8, paragraph 33) whose contents cause a processor (Fig. 7, 703; page 7, paragraph 32 to page 8, paragraph 33) to execute instructions to cause a network component (Fig. 7, 700) to:

receive requests for service from client devices (Figs. 4-6, 410; page 8, paragraph 34), the received requests including requests for scheduled service and requests for unscheduled service from the client devices (Figs. 4-6, 430, 460);

become informed of a request for scheduled service based on a field of a traffic specification format being set to a first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-6, 420; page 4, paragraphs 20 and 21);

become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Fig. 3a, TS INFO; Fig. 3b, SCHEDULE; Figs. 4-6, 420; page 4, paragraphs 20 and 21);

determine an ability to accommodate said received requests for service (Fig. 4, 460, 465, 430; Fig. 5, 510, 460, 465; Fig. 6, 430, 630; page 4, paragraph 21 to page 5, paragraph 23; page 6, paragraphs 27 and 28); and

provide respective indications of the ability to accommodate said received requests for service to the respective client devices (Fig. 4, 470, 450, 435; Fig. 5, 470, 530; Fig. 6, 530, 450, 435; page 4, paragraph 21 to page 5, paragraph 26; page 6, paragraphs 27-29). (See also Figures 3a through 7 and the descriptions thereof on pages 4-8).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1, 3-8, 10-20 and 22 are unpatentable under 35 USC Section 103(a) as obvious over U.S. Patent Application Publication No. 2004/0264397 A1 by Benveniste in view of U.S. Patent No. 7,274,691 issued to Rogers.

2. Whether claims 2, 9, 21 and 23 are unpatentable under 35 USC Section 103(a) as obvious over Benveniste and Rogers in view of U.S. Patent Application Publication No. 2003/0126244 A1 by Smith et al.

VII. ARGUMENT

The Examiner initially bears the burden of establishing a *prima facie* case of unpatentability. *In re Bell*, 26 U.S.P.Q.2d 1529 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984); MPEP § 2142.

An obviousness rejection may be attacked by showing that the Examiner has failed to properly establish a *prima facie* case or by presenting evidence tending to support a conclusion of non-obviousness. In order to find *prima facie* obviousness when combining references, MPEP § 2143(A)(1) states the following (emphasis ours): "Office personnel must articulate the following: (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference." MPEP § 706.02(j) further states (emphasis ours): "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985)." *See also In re Thrift and Hemphill*, 298 F.3d 1357, 1366 (Fed. Cir. 2002) (for an examiner to establish a *prima facie* case that an invention, as defined by a claim at issue, is obvious the examiner must: (1) show some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or the combined references) must teach or suggest all the claim limitations); MPEP § 2142. Moreover, a reference must be viewed as a whole, including portions that would lead away from the claimed invention. MPEP § 2141.02 (citing *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983). If the

proposed modification would change the principles of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP § 2143.01 (citing *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959)).

The U.S. Supreme Court case, *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), does not change the requirement for an examiner to provide such evidence of motivation. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." MPEP § 2143. The level of skill in the art cannot be relied upon to provide the suggestion to combine the references. MPEP § 2143.01 (citing *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999). The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP § 2143.01 (citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990).

A. Claims 1-7 Are Not Rendered Obvious by Benveniste, Considered Alone or in Combination With Rogers and Smith

Independent claim 1 recites, "[a] method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network, said method comprising: receiving requests for service from respective ones of said client devices, the received requests for service including a request for scheduled service received from a first one of the client devices and a request for unscheduled service received from a second one of the client devices, said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value ..."

The Examiner concedes that Benveniste does not disclose the recited "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said

request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner points to Column 10, lines 35-43 of Rogers. The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or a request for unscheduled service. Further, Rogers appears to be completely unrelated to devices operating in a power-saving mode. The Examiner does not argue that Smith provides the missing teachings. Accordingly, Benveniste, considered alone or in combination with Rogers and Smith, does not render claim 1 obvious at least because the references do not disclose "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value," as recited. The Examiner provides no reasoned explanation why one of skill in the art would have found the required further modifications to the combination of Benveniste, Rogers and Smith to be obvious. In response to the above arguments, the Examiner states as follows:

> 25. Applicant argues: "The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or request for unscheduled service" (pg 8, lines 16-20).
>
> Examiner respectfully disagrees. Rogers deals with the scheduling of packet flows to provide guaranteed bandwidth (Col. 6, lines 27-52). Real-time packets of Rogers are packets associated with delivery delay limit guarantees (Rogers, Col. 10, lines 30-31). The real-time packets are sent according to a predetermined, allocated schedule (Rogers, Col. 10, lines 42-43). The packet flow associated with a real-time application (or an application with delivery delay limit guarantees) is identified by packet header field values that are common to all packets in the flow (Rogers, Col. 10, lines 35-38). Therefore, in Rogers there are packet header values that are different between a scheduled packet flow and unscheduled packets. Rogers uses the packet header values (a field of traffic specification format) to differentiate between scheduled and

unscheduled packet flows (indicate whether a request for service is a request for scheduled service or request for unscheduled service).

The cited portions of Column 10 of Rogers upon which the Examiner relies are reproduced below:

> The transmission of packets associated with delivery and delay limit guarantees, referred to as real-time packets, is now described. Such packets may, for example, be associated with real-time applications. The association between a real-time packet and a real-time application may, for example, be through packet flow. A packet flow associated with a real-time application may be identified by some set of packet header field values that are common to all packets within the packet flow. Real-time packets may also be handled by the switch **2**. For example, processing of real-time packets sent by the host **1** to the switch **2** requires that the host **1** coordinate its guaranteed transmissions with the switch **2**. The host **1** will further send its real-time packets in accordance with a predetermined, allocated schedule. In

Thus, as previously argued, the cited portion of Rogers discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format of a request for service, for any reason, let alone to indicate whether the request for service is a request for scheduled service or a request for unscheduled service. To the extent the Examiner contends Rogers inherently discloses the missing feature based on the reference to coordinating between the host and the switch, evidentiary support was respectfully requested, and was not provided. It is noted that inherency is not shown merely because a reference could be modified to include a missing feature.

In the Advisory Action, the Examiner points to disparate portions of Rogers that (i) mention real-time packet flows may be scheduled (Column 12, lines 12-28) and (ii) discuss using header values to identify packets as part of a previously scheduled real-time packet flow. The Examiner then apparently reasons (without citing any evidentiary support) that a packet that identifies itself as part of a previously scheduled particular real-time application packet flow

using any combination of header field values identifies itself as a request for scheduled service using those fields.

Assuming for the sake of argument that a packet using one or more fields to identify itself as part of a previously scheduled real-time packet flow somehow discloses "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value," this does not mean that Rogers would also disclose "said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." For example, the one or more fields of the previously scheduled packets of Rogers could have different values for any number of reasons, such as to indicate they are part of another previously scheduled real-time packet flow.

Accordingly, the Examiner has not established a *prima facie* case that claim 1 is rendered obvious by Benveniste, considered alone or in combination with the other references. Thus, claim 1 is allowable. Claims 2-7 depend from claim 1 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

B. Claims 8-17 Are Not Rendered Obvious by Benveniste, Considered Alone or in Combination With Rogers and Smith

Independent claim 8 recites, "said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner concedes this functionality is not disclosed by Benveniste. The Examiner points to Rogers, Col. 10, lines 35-43. The cited portion of Rogers, however, discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or a request for unscheduled service. Further, Rogers appears to be completely unrelated

to devices operating in a power-saving mode. The Examiner does not contend that Smith provides the missing teachings. Accordingly, Benveniste, considered alone or in combination with Rogers and Smith, does not render claim 8 obvious at least because the references do not disclose "said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value," as recited. The Examiner provides no reasoned explanation why one of skill in the art would have found the required further modifications to the combination of Benveniste, Rogers and Smith to be obvious.

In response to the above arguments, the Examiner states as follows:

> 25. Applicant argues: "The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or request for unscheduled service" (pg 8, lines 16-20).
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> Examiner respectfully disagrees. Rogers deals with the scheduling of packet flows to provide guaranteed bandwidth (Col. 6, lines 27-52). Real-time packets of Rogers are packets associated with delivery delay limit guarantees (Rogers, Col. 10, lines 30-31). The real-time packets are sent according to a predetermined, allocated schedule (Rogers, Col. 10, lines 42-43). The packet flow associated with a real-time application (or an application with delivery delay limit guarantees) is identified by packet header field values that are common to all packets in the flow (Rogers, Col. 10, lines 35-38). Therefore, in Rogers there are packet header values that are different between a scheduled packet flow and unscheduled packets. Rogers uses the packet header values (a field of traffic specification format) to differentiate between scheduled and unscheduled packet flows (indicate whether a request for service is a request for scheduled service or request for unscheduled service).

The cited portions of Column 10 of Rogers upon which the Examiner relies are reproduced below:

The transmission of packets associated with delivery and delay limit guarantees, referred to as real-time packets, is now described. Such packets may, for example, be associated with real-time applications. The association between a real-time packet and a real-time application may, for example, be through packet flow. A packet flow associated with a real-time application may be identified by some set of packet header field values that are common to all packets within the packet flow. Real-time packets may also be handled by the switch **2**. For example, processing of real-time packets sent by the host **1** to the switch **2** requires that the host **1** coordinate its guaranteed transmissions with the switch **2**. The host **1** will further send its real-time packets in accordance with a predetermined, allocated schedule. In

Thus, as previously argued, the cited portion of Rogers discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format of a request for service, for any reason, let alone to indicate whether the request for service is a request for scheduled service or a request for unscheduled service. To the extent the Examiner contends Rogers inherently discloses the missing feature based on the reference to coordinating between the host and the switch, evidentiary support is respectfully requested. It is noted that inherency is not shown merely because a reference could be modified to include a missing feature.

In the Advisory Action, the Examiner points to disparate portions of Rogers that (i) mention real-time packet flows may be scheduled (Column 12, lines 12-28) and (ii) discuss using header values to identify packets as part of a previously scheduled real-time packet flow. The Examiner then apparently reasons (without citing any evidentiary support) that a packet that identifies itself as part of a previously scheduled particular real-time application packet flow using any combination of header field values identifies itself as a request for scheduled service using those fields.

Assuming for the sake of argument that a packet using one or more fields of a header to identify itself as part of a previously scheduled real-time packet flow somehow discloses "said device being informed of said request for scheduled service by a field of a traffic specification

format being set to a first value," this does not mean that Rogers would also disclose "said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." For example, the one or more fields of the previously scheduled packets of Rogers could have different values for any number of reasons, such as to indicate they are part of another previously scheduled real-time packet flow.

Accordingly, the Examiner has not established a *prima facie* case that claim 8 is rendered obvious by Benveniste, considered alone or in combination with the other references. Thus, claim 8 is allowable. Claims 9-17 depend from claim 8 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

C. Claims 18-21 Are Not Rendered Obvious by Benveniste, Considered Alone or in Combination With Rogers and Smith

Independent claim 18 recites, "review … said requests for service, the requests for service including requests for scheduled service and requests for unscheduled service, said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner concedes Benveniste does not disclose "said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner points to Rogers, Col. 10, lines 35-43. The cited portion of Rogers, however, discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or a request for unscheduled service. The Examiner does not contend that

Smith provides the missing teachings. Accordingly, Benveniste, considered alone or in combination with Rogers and Smith, does not render claim 18 obvious at least because the references do not disclose "said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value," as recited. The Examiner provides no reasoned explanation why one of skill in the art would have found the required further modifications to the combination of Benveniste, Rogers and Smith to be obvious.

In response to the above arguments, the Examiner states as follows:

> 25. Applicant argues: "The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or request for unscheduled service" (pg 8, lines 16-20).
>
> Examiner respectfully disagrees. Rogers deals with the scheduling of packet flows to provide guaranteed bandwidth (Col. 6, lines 27-52). Real-time packets of Rogers are packets associated with delivery delay limit guarantees (Rogers, Col. 10, lines 30-31). The real-time packets are sent according to a predetermined, allocated schedule (Rogers, Col. 10, lines 42-43). The packet flow associated with a real-time application (or an application with delivery delay limit guarantees) is identified by packet header field values that are common to all packets in the flow (Rogers, Col. 10, lines 35-38). Therefore, in Rogers there are packet header values that are different between a scheduled packet flow and unscheduled packets. Rogers uses the packet header values (a field of traffic specification format) to differentiate between scheduled and unscheduled packet flows (indicate whether a request for service is a request for scheduled service or request for unscheduled service).

The cited portions of Column 10 of Rogers upon which the Examiner relies are reproduced below:

The transmission of packets associated with delivery and delay limit guarantees, referred to as real-time packets, is now described. Such packets may, for example, be associated with real-time applications. The association between a real-time packet and a real-time application may, for example, be through packet flow. A packet flow associated with a real-time application may be identified by some set of packet header field values that are common to all packets within the packet flow. Real-time packets may also be handled by the switch **2**. For example, processing of real-time packets sent by the host **1** to the switch **2** requires that the host **1** coordinate its guaranteed transmissions with the switch **2**. The host **1** will further send its real-time packets in accordance with a predetermined, allocated schedule. In

Thus, as previously argued, the cited portion of Rogers discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format of a request for service, for any reason, let alone to indicate whether the request for service is a request for scheduled service or a request for unscheduled service. To the extent the Examiner contends Rogers inherently discloses the missing feature based on the reference to coordinating between the host and the switch, evidentiary support is respectfully requested. It is noted that inherency is not shown merely because a reference could be modified to include a missing feature.

In the Advisory Action, the Examiner points to disparate portions of Rogers that (i) mention real-time packet flows may be scheduled (Column 12, lines 12-28) and (ii) discuss using header values to identify packets as part of a previously scheduled real-time packet flow. The Examiner then apparently reasons (without citing any evidentiary support) that a packet that identifies itself as part of a previously scheduled particular real-time application packet flow using any combination of header field values identifies itself as a request for scheduled service using those fields.

Assuming for the sake of argument that a packet using one or more fields of a header to identify itself as part of a previously scheduled real-time packet flow somehow discloses "said

network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value," this does not mean that Rogers would also disclose "said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." For example, the one or more fields of the previously scheduled packets of Rogers could have different values for any number of reasons, such as to indicate they are part of another previously scheduled real-time packet flow.

Accordingly, the Examiner has not established a *prima facie* case that claim 18 is rendered obvious by Benveniste, considered alone or in combination with the other references. Thus, claim 18 is allowable. Claims 19-21 depend from claim 18 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

D. Claims 22 and 23 Are Not Rendered Obvious by Benveniste, Considered Alone or in Combination With Rogers and Smith

Independent claim 22 recites, "become informed of a request for scheduled service based on a field of a traffic specification format being set to a first value; become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner concedes Benveniste does not disclose "become informed of a request for scheduled service based on a field of a traffic specification format being set to a first value; become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." The Examiner points to Rogers, Col. 10, lines 35-43. The cited portion of Rogers, however, discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or a request for unscheduled service. The Examiner does not contend that Smith provides the missing teachings. Accordingly, Benveniste, considered alone or in combination with Rogers and Smith, does not

render claim 22 obvious at least because the references do not disclose "become informed of a request for scheduled service based on a field of a traffic specification format being set to a first value; become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value," as recited. The Examiner provides no reasoned explanation why one of skill in the art would have found the required further modifications to the combination of Benveniste, Rogers and Smith to be obvious.

In response to the above arguments, the Examiner states as follows:

> 25. Applicant argues: "The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or request for unscheduled service" (pg 8, lines 16-20).
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> Examiner respectfully disagrees. Rogers deals with the scheduling of packet flows to provide guaranteed bandwidth (Col. 6, lines 27-52). Real-time packets of Rogers are packets associated with delivery delay limit guarantees (Rogers, Col. 10, lines 30-31). The real-time packets are sent according to a predetermined, allocated schedule (Rogers, Col. 10, lines 42-43). The packet flow associated with a real-time application (or an application with delivery delay limit guarantees) is identified by packet header field values that are common to all packets in the flow (Rogers, Col. 10, lines 35-38). Therefore, in Rogers there are packet header values that are different between a scheduled packet flow and unscheduled packets. Rogers uses the packet header values (a field of traffic specification format) to differentiate between scheduled and unscheduled packet flows (indicate whether a request for service is a request for scheduled service or request for unscheduled service).

The cited portions of Column 10 of Rogers upon which the Examiner relies are reproduced below:

The transmission of packets associated with delivery and delay limit guarantees, referred to as real-time packets, is now described. Such packets may, for example, be associated with real-time applications. The association between a real-time packet and a real-time application may, for example, be through packet flow. A packet flow associated with a real-time application may be identified by some set of packet header field values that are common to all packets within the packet flow. Real-time packets may also be handled by the switch **2**. For example, processing of real-time packets sent by the host **1** to the switch **2** requires that the host **1** coordinate its guaranteed transmissions with the switch **2**. The host **1** will further send its real-time packets in accordance with a predetermined, allocated schedule. In

Thus, as previously argued, the cited portion of Rogers discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format of a request for service, for any reason, let alone to indicate whether the request for service is a request for scheduled service or a request for unscheduled service. To the extent the Examiner contends Rogers inherently discloses the missing feature based on the reference to coordinating between the host and the switch, evidentiary support is respectfully requested. It is noted that inherency is not shown merely because a reference could be modified to include a missing feature.

In the Advisory Action, the Examiner points to disparate portions of Rogers that (i) mention real-time packet flows may be scheduled (Column 12, lines 12-28) and (ii) discuss using header values to identify packets as part of a previously scheduled real-time packet flow. The Examiner then apparently reasons (without citing any evidentiary support) that a packet that identifies itself as part of a previously scheduled particular real-time application packet flow using any combination of header field values identifies itself as a request for scheduled service using those fields.

Assuming for the sake of argument that a packet using one or more fields of a header to identify itself as part of a previously scheduled real-time packet flow somehow discloses "become informed of a request for scheduled service based on a field of a traffic specification

format being set to a first value," this does not mean that Rogers would also disclose "become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value." As discussed above, the one or more fields of the previously scheduled packets of Rogers could have different values for any number of reasons, such as to indicate they are part of another previously scheduled real-time packet flow.

Accordingly, the Examiner has not established a *prima facie* case that claim 22 is rendered obvious by Benveniste, considered alone or in combination with the other references. Thus, claim 22 is allowable. Claim 23 depends from claim 22 and is allowable at least by virtue of its dependency, as well as because of the novel and non-obvious combination claimed therein.

E. Conclusion of Argument

The Examiner has failed to establish a *prima facie* case that the claims are anticipated or rendered obvious by Benveniste, whether considered alone or in combination with Rogers and Smith. Accordingly, the Examiner's rejections cannot be sustained and reversal of the Examiner's rejections is respectfully requested.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. A method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network, said method comprising:

receiving requests for service from respective ones of said client devices, the received requests for service including a request for scheduled service received from a first one of the client devices and a request for unscheduled service received from a second one of the client devices, said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value;

determining an ability to accommodate said received requests for service; and

providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client devices.

2. The method as recited in claim 1, further comprising, in response to being unable to accommodate the request for unscheduled service, providing a proposed service schedule to the second one of the client devices.

3. The method as recited in claim 1, wherein said request for scheduled service includes a proposed service schedule.

4. The method as recited in claim 3, further comprising modifying said proposed service schedule.

5. The method as recited in claim 4, further comprising providing said modified proposed service schedule to said first one of the client devices.

6. The method as recited in claim 1, wherein said indications are selected from a group consisting of: denied, accommodated with change, and accommodated.

7. The method as recited in claim 1, wherein said determining the ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method, a proposed schedule, network operating state, network policy, and network condition.

8. A device to determine when to provide service to client devices operating in power-saving mode in a wireless network, said device comprising:

a memory;

a processor in communication with said memory, said processor operable to execute code to:

receive requests for service from respective ones of said client devices, the received requests including a request for scheduled service received from a first one of the client devices and a request for unscheduled service received from a second one of the client devices, said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value;

determine an ability to accommodate said received requests for service; and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client devices.

9. The device as recited in claim 8, wherein said processor is further operable to execute said code to, in response to being unable to accommodate the request for unscheduled service, provide a proposed service schedule to the second one of the client devices.

10. The device as recited in claim 8, wherein said request for scheduled service includes a proposed service schedule.

11. The device as recited in claim 10, wherein said processor is further operable to execute said code to: modify said proposed service schedule.

12. The device as recited in claim 11, wherein said processor is further operable to execute said code to: provide said modified service schedule to said first one of the client devices.

13. The device as recited in claim 8, wherein said indications are selected from a group consisting of: denied, accommodated with change, and accommodated.

14. The device as recited in claim 8, wherein said determine said ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method, a proposed schedule, network operating state, network policy, and network condition.

15. The device as recited in claim 8, further comprising: an I/O device operable as an interface between said network and said processor.

16. The device as recited in claim 8, wherein said code is stored in said memory.

17. The device as recited in claim 8, further comprising:

a receiving device to receive said requests; and

a transmitting device to provide said respective indications to the first and second ones of said client devices.

18. A processing device within a network component to determine an ability of said network component to honor requests for service received from respective client devices, said processing device being configured to cause the network component to:

review, under control of the processing device, an operating state of said network component;

review, under control of the processing device, said requests for service, the requests for service including requests for scheduled service and requests for unscheduled service, said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value;

cause, under control of the processing device, the network component to accommodate said requests for service, with modification when necessary, when said operating state indicates that said requests for service are able to be accommodated; and

provide respective indications of said accommodation to said first and second one of the client devices.

19. The processing device as recited in claim 18 wherein said processing device is further configured to cause the network component to:

provide respective indications of denying said requests for service to the respective client devices when said operating state indicates that said requests for service are unable to be accommodated.

20. The processing device as recited in claim 18, wherein said operating state is selected from a group consisting of: processing load, demand, projected processing load, projected demand, network component operating state, network component policy, and network component condition.

21. The processing device as recited in claim 18 wherein said processing device is further adapted to cause the network component to, in response to being unable to accommodate a request for unscheduled service, provide a proposed service schedule to the respective client device.

22. A non-transitory computer readable media whose contents cause a processor to execute instructions to cause a network component to:

receive requests for service from client devices, the received requests including requests for scheduled service and requests for unscheduled service from the client devices;

become informed of a request for scheduled service based on a field of a traffic specification format being set to a first value;

become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value;

determine an ability to accommodate said received requests for service; and

provide respective indications of the ability to accommodate said received requests for service to the respective client devices.

23. The non-transitory computer readable media of claim 22 wherein execution of the instructions further causes the network component to, in response to being unable to accommodate a request for unscheduled service, provide a proposed service schedule to the respective client device.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.